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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,866	06/26/2003	Yunoh Jung	20862.B.NP	5518
20551	7590	06/16/2006	EXAMINER	
THORPE NORTH & WESTERN, LLP. 8180 SOUTH 700 EAST, SUITE 200 SANDY, UT 84070			MANAHAN, TODD E	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Interview Summary	Application No.	Applicant(s)	
	10/606,866	JUNG ET AL.	
	Examiner	Art Unit	
	Todd E. Manahan	3732	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Todd E. Manahan. (3) _____
 (2) Garron Hobson. (4) _____

Date of Interview: 10 May 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference
 c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
 If Yes, brief description: _____

Claim(s) discussed: 1, 11, 21, 33 and 40.

Identification of prior art discussed: W.O.W. Articulator Techniques.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.



Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: proposed amendments to the claims attached hereto would be allowable over the prior art of record. It was discussed that W.O.W. teaches using an adhesive tape on the bottom of the registration pin holes instead of forming the membrane integrally with the tray and how placing the pins in the holes of the W.O.W. articulator causes the tape to bow out prior to the pin piercing it thus opening more pin holes and that the tape also has a slight "bow string effect" which causes the pin to come up after the tape is pierced. Applicant agreed to provide a declaration to support this. It was also agreed that forming the membrane on the die receiving surface or top of the tray would also overcome the rejections in view of W.O.W. which teach placement on the bottom of the holes. .

DRAFT

attachment to
Interview Summary

This listing of claims will replace all prior versions, and listings, of claims in the application:

Proposed Listing of Claims 5-9-06

1. (currently amended) A dental articulating system configured to duplicate at least a portion of a patient's mouth for use in producing a dental prosthesis, the device comprising:
 - a) a pair of trays, pivotally coupled together;
 - b) a plurality of registration pin holes, formed in at least one of the trays;
 - c) a plurality of indentations, each associated with one of the plurality of registration pin holes and ~~at least one indentation~~, formed in at least one of the trays at a bottom of ~~at least one of~~ the plurality of registration pin holes, and sized to receive a tip of a finger or thumb;
 - d) a thin membrane, disposed across the registration pin holes between the registration pin holes and the indentation, configured to close off the registration pin holes and resist dental casting material from substantially filling the registration pin holes; and
 - e) at least one registration pin, disposable in at least one of the plurality of registration pin holes, the thin membrane being breakable by the registration pin inserted into the registration pin hole with the registration pin being extendable through the thin membrane and into the indentation.
2. (canceled)
3. (currently amended) A system in accordance with claim 1, wherein the tray and the thin membrane are formed integrally with one another and of the same material.
4. (original) A system in accordance with claim 1, wherein the thin membrane is separately formed from the tray and attached to the tray.
5. (canceled)

6. (canceled)

7. (canceled)

8. (original) A system in accordance with claim 1, further comprising:

registration struts, formed in at least one of the trays, having a hexagonal cross section.

9. (original) A system in accordance with claim 1, further comprising:

a trough formed in at least one of the trays by a perimeter wall, the perimeter wall having a wavy profile with a plurality of arcuate indentations.

10. (original) A system in accordance with claim 1, further comprising:

a hinge, integrally formed with the trays and positioned between the trays, including:

- i) a pivot axle, associated with one of the trays;
- ii) a shoulder, extending at least partially around the pivot axle and creating two axle portions extending on each side of the shoulder; and
- iii) a pair of fingers, associated with another of the trays, pivotally positioned on opposite sides of the pivot axle and on opposite sides of the shoulder and separated by both the axle and the shoulder.

11. (currently amended) A method for forming a dental model, comprising the steps of:

- a) pressing a registration pin through a thin membrane formed integrally with a working tray of a dental articulator and extending across at least one ~~a plurality of registration pin hole holes on the~~ a working tray of ~~the~~ a dental articulator so that the registration pin breaks the thin membrane and extends through the thin membrane;
- b) forming a prepped model of a prepped tooth by disposing dental casting

material over the registration pin on the working tray of the dental articulator while the registration pin remains in the registration pin hole, the prepped model of the prepped tooth to receive a dental prosthesis;

c) maintaining a position of the registration pin in the registration pin hole through the thin membrane while the prepped model of the prepped tooth is formed; and

d) forming an opposing model of an opposing tooth on an opposing tray of the dental articulator, the opposing model of the opposing tooth opposing the prepped tooth.

12. (original) A method in accordance with claim 11, further comprising the step of:

segmenting the prepped model on sides corresponding to the prepped tooth to form a prosthesis die.

13. (previously presented) A method in accordance with claim 11, wherein the step of forming the prepped model further includes the step of:

disposing dental casting material over the registration pin holes in the working tray with the thin membrane formed integrally with the working tray and extending across the registration pin holes to resist dental casting material from substantially filling the registration pin holes.

14. (original) A method in accordance with claim 11, wherein the step of pressing the registration pin through the thin membrane further includes the step of:

pressing the registration pin through a thin membrane extending across the registration pin hole near a bottom of the registration pin hole.

15. (canceled).

16. (original) A method in accordance with claim 11, further comprising the step of:

pushing a thumb or finger into a thumb indentation positioned at a bottom of a registration pin hole to push a registration pin out of the registration pin hole.

d) removing the impression from the dental articulator leaving the opposing and the prepped models on respective opposing and working trays.

21. (currently amended) A method for forming a dental model, comprising the steps of:

a) obtaining an impression of at least some of a patient's teeth, the impression including a prepped side with an impression of a prepped tooth to receive a dental prosthesis, and an opposing side with an impression of an opposing tooth opposing the prepped tooth;

b) obtaining a dental articulator with opposing and working trays pivotally coupled together and a thin membrane formed integrally with one of the working trays and extending across a plurality of registration pin holes in the working tray;

c) disposing dental casting material on the opposing tray and in the opposing side of the impression;

d) disposing the opposing side of the impression over the opposing tray so that dental casting material extends therebetween and forms an opposing model of the opposing tooth;

e) positioning at least one registration pin in the plurality of registration pin holes in the working tray at a location corresponding to the prepped tooth;

f) pressing the at least one registration pin through the thin membrane extending across the ~~at least one of the~~ plurality of registration pin holes;

g) disposing dental casting material in the prepped side of the impression and on the working tray with the at least one registration pin remaining in the at least one of the plurality of registration pin holes to resist dental casting material from entering the plurality of registration pin holes;

h) maintaining a position of the at least one registration pin in the registration pin hole through the thin membrane while the dental casting material is disposed on a surface of the working tray and over a head of the at least one registration pin;

i) disposing the working tray over the prepped side of the impression so that the dental casting material extends therebetween and forms a prepped model of the prepped

~~coupled integrally formed with the trays~~, the hinge including a first portion with a shoulder circumscribing an axle and a second portion with opposing fingers movably disposed on opposite sides of the axle and on opposite sides of the shoulder.

Claims 29-32 (canceled)

33. (currently amended) A method for forming a dental model, comprising the steps of:

a) obtaining an impression of at least some of a patient's teeth, the impression including a prepped side with an impression of the prepped tooth to receive the dental prosthesis, and an opposing side with an impression of the opposing tooth opposing the prepped tooth;

b) pressing a registration pin through a thin membrane formed at a die receiving surface of a working tray of a dental articulator and extending across a plurality of registration pin holes on the a-working tray of the a-dental articulator so that the registration pin breaks the thin membrane and extends through the thin membrane;

c) introducing dental casting material on the working tray and over the registration pin while the registration pin remains in the registration pin hole, to form a prepped model of a prepped tooth on the working tray of the dental articulator, the prepped model of the prepped tooth to receive a dental prosthesis;

d) introducing dental casting material between an opposing tray and the opposing side of the impression to form an opposing model of an opposing tooth on an opposite tray of the dental articulator, the opposing model of the opposing tooth opposing the prepped tooth.

34. (canceled).

35. (canceled).

36. (canceled).

37. (previously presented) A system in accordance with claim 1, wherein the at least one indentation is formed in the tray separate from a perimeter wall of the tray.

38. (previously presented) A method in accordance with claim 11, wherein the step of forming the prepped model further includes the step of:

disposing dental casting material over the registration pin holes in the working tray with the thin membrane formed separately from the working tray and attached to the working tray.

39. (canceled).

40. (currently amended) A dental articulating system configured to duplicate at least a portion of a patient's mouth for use in producing a dental prosthesis, the device comprising:

- a) a pair of trays, pivotally coupled together;
- b) a plurality of registration pin holes, formed in at least one of the trays;
- c) a thin membrane, formed integrally with at least one of the trays or formed at a die receiving surface of one of the trays and disposed across the registration pin holes ~~below a surface of the at least one of the trays~~, configured to close off the registration pin holes and resist dental casting material from substantially filling the registration pin holes;
- d) at least one registration pin, disposable in at least one of the plurality of registration pin holes, the thin membrane being breakable by the registration pin inserted into the registration pin hole with the registration pin being extendable through the thin membrane; and
- e) wherein each of the pin holes comprises a substantially round elongate chamber having a depth greater than a width, and wherein the thin membrane ~~creates an air pocket in the elongate chamber when casting material is poured to~~ resists dental casting material from substantially filling the elongate chamber.